

U.S. Application No.: 10/826,582
AMENDMENT C
Reply to Office action dated 05/10/2006

ATTORNEY DOCKET NO.: 3926.081

REMARKS

Claims 21-40 are pending in the application. Claims 21-40 have been amended. Claims 1-20 have been previously cancelled.

Claims Rejections – 35 USC 103

Claims 21, 25-27, and 30-39 are rejected under 35 USC 103(a) as being obvious over Langer et al. (US 6,155,331) in view of Goldsmith (US 4,983,423).

Claim 22 is rejected under 35 USC 103(a) as being obvious over Langer et al. in view of Goldsmith and further in view of Horton (3,802,891).

Claims 23-24 and 40 are rejected under 35 USC 103(a) as being obvious over Langer et al. in view of Goldsmith and further in view of either Zoia et al. (US 6,609,043) or Smith et al. (US 6,354,362).

Claims 28-29 are rejected under 35 USC 103(a) as being obvious over Langer et al. in view of Goldsmith and further in view of Kington (US 4,989,667).

Langer et al. disclose a ceramic casting mold, which is produced by a Rapid process and is in a not-sintered green state. The ceramic consists of molding sand, which is coated with heat-hardened resin binder. The mold strength is provided by the hardened binder, not by the sintering.

In contrast to the present invention, Langer et al. disclose

- no porous ceramic
- no fine particles
- no mention of expansion coefficient

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The object of the present invention is to guarantee a sufficiently good dimensional stability of the casting mold. This object is achieved by the additional application of fine particles, through which the temperature required for the sintering compound of the coarse particles is lowered, especially shrinkage is reduced.

Langer et al. disclose a totally different alternative solution, namely the compound of the particles, over which the heat-hardened resin binder is coated, is not sintered. This results over the prior art the advantage of reduced material shrinkage and warp (see column 13, lines 27-31).

A person skilled in the art with knowledge of Langer et al. has already solved the problem of the present invention – but in a different way. A person skilled in the art, therefore, has no motivation to look for another solution. Without the motivation, it is not obvious to change the solution disclosed by Langer et al. to reach the present invention.

Even if a person skilled in the art would look for another solution and combine Goldsmith with Langer et al., the combination does not lead to the present invention.

First, Langer et al. and also the present invention concern the production of casting molds with Rapid-process. In contrast, Goldsmith concerns the production of porous membrane for filter devices by slip casting or dynamic filtration. Accordingly, the international or the US patent classes are totally different. Therefore, Applicants believe that a person skilled in the art first would not find Goldsmith and second, even if he or she would obtain Goldsmith, he or she would not take it into consideration.

Further, Applicants believe that a not permitted hindsight consideration presents when considering Goldsmith.

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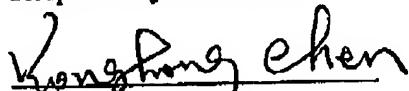
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Even if a person skilled in the art would combine Goldsmith and Langer et al., the subject matter of the present invention would not result, rather at least there is no matching of the expansion coefficients because Goldsmith discloses (see column 9, lines 33 ff) that very good adhesion is provided in spite of very large differences in expansion coefficients of the substrate (carrier: 1.0 to 1.2) and of the membrane (7-8). Therefore, a person skilled in the art would not obtain any knowledge from Goldsmith to match the expansion coefficients. The expansion coefficient of 7-8 disclosed by Goldsmith overlaps with the value of more than 7.5 as recited in the instant application only accidentally. In order to facilitate the prosecution, the independent claims of the instant application have been modified to recite an expansion coefficient of more than 8.5. The support may be found in paragraph [00013] of the specification.

Withdrawal of the rejections and early issuance of the Notice of Allowance are respectfully requested. Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

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Respectfully submitted,


Yonghong Chen
Registration No. 56,150
Akerman Senterfitt
222 Lakeview Avenue, Suite 400
West Palm Beach, FL 33401
Phone: 561-653-5000
Fax: 561-659-6313